



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0159; Project Identifier AD-2021-01019-T; Amendment 39-22199; AD 2022-20-15]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all The Boeing Company Model 757 airplanes. This AD was prompted by a report of cracks found in the fastener holes at a certain location in the center wing box rear spar, lower skin. This AD requires repetitive inspections for cracking of certain areas of the center wing box rear spar, lower skin and lower chord; and repair. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0159; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is

U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; website myboeingfleet.com.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at regulations.gov under Docket No. FAA-2022-0159.

FOR FURTHER INFORMATION CONTACT: Peter Jarzomb, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5234; email: peter.jarzomb@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all The Boeing Company Model 757-200, -200PF, -200CB, and -300 series airplanes. The NPRM published in the *Federal Register* on April 11, 2022 (87 FR 21032). The NPRM was prompted by a report of cracks found in the fastener holes at a certain location in the center wing box rear spar, lower skin, on a Boeing Model 737-300. An analysis by Boeing showed the same condition can occur on Boeing Model 757 airplanes. In the NPRM, the FAA proposed to require repetitive inspections for cracking of certain areas of the center wing box rear spar, lower skin and lower chord; and repair. The FAA is issuing this AD to detect and correct cracking that, if

undetected, could result in the inability of a principal structural element to sustain limit load, which could adversely affect the structural integrity of the airplane.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from FedEx Express who supported the NPRM without change.

The FAA received additional comments from four commenters, including Aviation Partners Boeing (APB), Boeing, Delta Air Lines (Delta), and United Airlines (United). The following presents the comments received on the NPRM and the FAA's response to each comment.

Effect of Winglets on Accomplishment of the Proposed Actions

APB stated that accomplishing Supplemental Type Certificate (STC) ST01518SE does not affect accomplishment of the actions specified in the proposed AD.

The FAA concurs with the commenter. The FAA has redesignated paragraph (c) of the proposed AD as paragraph (c)(1) of this AD and added paragraph (c)(2) to this AD to state that installation of STC ST01518SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01518SE is installed, a "change in product" alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

Request to Clarify Sealant Requirements

Delta requested adding a paragraph to the proposed AD to provide clarification on the sealant requirements specified in Figure 2, Sheet 3; Figure 3, Sheet 3; and Figure 4, Sheet 3 of Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021. Delta stated that in those figures on the sheets specified in the previous sentence the application of BMS 5-45 and BMS 5-168 sealants are listed as separate substeps and calls for both of those sealants to be applied. Delta also stated that Step 2 of Figures 2 and 4

also seem to confirm a “both/and” interpretation. Delta asserted that without clarification, operators would be unable to discern between a “both/and” sub-step and an “either/or” sub-step in those figures. Delta added that Boeing confirmed that “The intent of the note is for operators to choose one of the sealants.” Delta pointed out that in other Boeing service information, an “either/or” step for applying sealant would use the format “BMS X-XX (BMS Y-YY optional).” Delta added in closing that it is impossible for operators to obtain materials meeting BMS 5-168. United also requested a correction to step 3 of figure 4 of Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021, because that step specifies applying two fuel tank sealants at the same location while a referenced manual section only specifies one sealant to be applied.

The FAA agrees to clarify the sealant requirements. The FAA has added paragraph (h)(3) to this AD to specify that where Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021, states in Step 3 of Sheet 3 of Figures 2 and 4 and in Step 4 of Sheet 3 of Figure 3 to use both sealants, this AD only requires one of the sealants to be used.

Request to Permit Certain Substitutes

Delta requested a revision of the proposed AD to permit the use of Section 20-30-01-201 from the Boeing 757 Aircraft Maintenance Manual (AMM) as a means of identifying permitted substitutes for BMS 5-168 and for fasteners, process and material substitutions. Delta stated that it reviewed reference material of Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021, and found that there were no products identified as a BMS 5-168 sealant.

The FAA disagrees with the request to revise the proposed AD to reference a section of the AMM. As previously stated, the FAA has added paragraph (h)(3) to this AD to permit the use of either BMS 5-45 or BMS 5-168 sealants, which provides relief from the lack of a BMS 5-168-qualified sealant. The FAA still requires the use of

approved fasteners, processes, and material substitutions in accordance with the specifications of Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021. The FAA has not changed this AD in this regard.

Request to Remove Incorrect Phrasing from Service Information

Delta requested a paragraph be added to the proposed AD to remove the phrase “as an accepted procedure” from note (b) in Sheet 3 of Figure 1 of Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021. Delta noted that a general note in the Accomplishment Instructions of Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021, defines “refer to” (suggested action) and “in accordance with” (required action) and that “as an accepted procedure” is being used in a note that specifies “in accordance with.” Delta received confirmation from Boeing that the phrase “as an accepted procedure” should not have been used in a note that specified “in accordance with.”

The FAA agrees to add paragraph (h)(4) to this AD to require omitting “as an accepted procedure” from note (b) in Sheet 3 of Figure 1 of Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021.

Request to Identify Inspection Locations in Costs of Compliance

Boeing requested that the inspection locations identified in the table of the Costs of Compliance paragraph of the proposed AD be revised. Boeing stated that the second row of the table, which identifies ultrasonic and detailed inspection action, does not specify a location. Boeing identified that location as being between LBBL [left body buttock line] 5.5 and 9.5 and RBBL [right body buttock line] 5.5 and 9.5. Boeing also stated that the third row of the table is not correct and should specify “between LBBL 5.5 and RBBL 5.5.”

The FAA agrees to revise the table in the Cost of Compliance paragraph of this AD as suggested by Boeing.

Request to Revise Estimated Work Hours

Boeing requested the table in Cost of Compliance paragraph in the proposed AD be revised to clarify that internal access hours are included with inspection actions. Boeing suggested either breaking out the internal access hours in a separate row or adding a footnote to clarify that the internal access hours have been included in each inspection action and thus, the overall inspection hours may be less when accomplished concurrently. Boeing noted that the proposal would allow operators to more accurately estimate the costs for their fleets.

The FAA agrees to clarify the estimated costs. The FAA acknowledges that access and close-out actions comprise the bulk of the work-hour estimates for the inspections. Further, for some situations, there might be duplicated access costs included in the estimates and thus the AD might look more “expensive” than the actual cost to operators. However, it is FAA policy to include all related work-hours in the cost estimate for required actions. Although an operator may choose to complete multiple inspections at once, they are not required to. Therefore the FAA includes all related costs for each inspection, which includes the access and close-out work-hours. The FAA has not changed this AD in this regard.

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021. This service information specifies procedures for repetitive external high-frequency eddy current (HFEC) or internal detailed inspections for cracking in the center wing box rear spar, lower skin, and lower chord between LBBL 9.5 and 39.0 and RBBL 9.5 and 39.0; repetitive internal ultrasonic inspection of the center wing box lower chord and detailed inspections of the lower skin at the rear spar between LBBL 5.5 and LBBL 9.5, and between RBBL 5.5 and RBBL 9.5 for cracking; repetitive internal detailed inspection of the center wing box lower skin and rear spar lower chord between LBBL 5.5 and RBBL 5.5 for any cracking; and repair. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Costs of Compliance

The FAA estimates that this AD affects 477 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
HFEC inspection or detailed inspection (between LBBL 9.5 and 39.0 and RBBL 9.5 and 39.0)	Up to 19 work-hours X \$85 per hour = Up to \$1,615 per inspection cycle	\$0	\$1,615 per inspection cycle	Up to \$770,355 per inspection cycle
Ultrasonic and detailed inspection (between LBBL 5.5 and 9.5 and RBBL 5.5 and 9.5)	19 work-hours X \$85 per hour = \$1,615 per inspection cycle	\$0	\$1,615 per inspection cycle	\$770,355 per inspection cycle

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Detailed inspection (between LBBL 5.5 and RBBL 5.5)	18 work-hour X \$85 per hour = \$1,530 per inspection cycle	\$0	\$1,530 per inspection cycle	\$729,810 per inspection cycle

The FAA has received no definitive data on which to base the cost estimates for the on-condition repairs specified in this AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-20-15 The Boeing Company: Amendment 39-22199; Docket

No. FAA-2022-0159; Project Identifier AD-2021-01019-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to all The Boeing Company Model 757-200, -200PF, -200CB, and -300 series airplanes, certificated in any category.

(2) Installation of Supplemental Type Certificate (STC) ST01518SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01518SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

(d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

This AD was prompted by a report of cracks found in the fastener holes at a certain location on the center wing box rear spar, lower skin. The FAA is issuing this AD to detect and correct cracking that, if undetected, could result in the inability of a principal structural element to sustain limit load, which could adversely affect the structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Except as specified by paragraph (h) of this AD: At the applicable times specified in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 757-57A0075, dated August 25, 2021, which is referred to in Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021.

(h) Exceptions to Service Information Specifications

(1) Where the Compliance Time columns of the tables in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021, use the phrase “the original issue date of Requirements Bulletin 757-57A0075 RB,” this AD requires using “the effective date of this AD.”

(2) Where Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021, specifies contacting Boeing for repair instructions: This AD requires doing the repair before further flight using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(3) Where Step 3 in Sheet 3 of Figures 2 and 4, and Step 4 in Sheet 3 of Figure 3 of Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021, specifies applying both BMS 5-45 and BMS 5-168 sealants, this AD requires application of either BMS 5-45 or BMS 5-168 sealant.

(4) Where note (b) in Sheet 3 of Figure 1 of Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021, specifies “as an accepted procedure,” this AD requires omitting that phrase.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j)(1) of this AD. Information may be emailed to:

9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO Branch, FAA, to make those findings. To be approved, the

repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(j) Related Information

(1) For more information about this AD, contact Peter Jarzomb, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5234; email: peter.jarzomb@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (k)(3) and (4) of this AD.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Requirements Bulletin 757-57A0075 RB, dated August 25, 2021.

(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; website myboeingfleet.com.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the

availability of this material at NARA, fr.inspection@nara.gov, or go to:

www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on September 24, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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